ATC 506WLC110KG115B
Ultra-Broadband Inductor

Features:
- Inductance: 11 µH, typ.
- Operating Frequency:
  500 KHz (-3 dB roll-off) through 40 GHz, typ.
- Insertion Loss (shunt mounted): 0.4 dB, typ.
- Return Loss (shunt mounted): 18 dB, typ.
- Rated Current: 115 mA dc, max.*
- DC Resistance: 7.0 Ω typ. @ 10 mA
- Operating Temperature Range: -40°C to +85°C
- Gold Plated leads: 15 – 25 µ in.

ATC, the industry leader, is introducing the new 506WLC Series High Frequency Ultra-Broadband Inductor (UBL). This unique component** provides low insertion loss and an excellent match over multiple octaves of frequency spectrum.

The 506WLC is ideal for ultra-broadband DC decoupling networks and bias tee applications in optical communications systems and equipment using high-speed digital logic.

*Current for 100 °C temperature rise
**patent pending

Advantages:
- Ultra-Broadband Performance
- Ultra-Low Insertion Loss
- Flat Frequency Response
- Excellent Return Loss Through 40 GHz
- Unit-to-Unit Performance Repeatability
- Rugged Powdered Iron Core

ATC 506WLC110 insertion Loss (S21)

ATC 506WLC110 Return Loss (S11)

All testing performed on 10-mil-thick Rogers RO4350 microstrip board, with the UBL leads connected between the microstrip trace and the underside ground plane (nominal 50-ohm characteristic impedance).
Electrical Specifications:
- Inductance: 11 µH, typ.
- Rated DC Current: 115 mA, max.
- DC Resistance: 7.0 Ω, typ. at +20°C, 10 mA current.

Mechanical Dimensions

The above part number refers to a 506WLC Series 11 µH inductor, K tolerance (±10%, typ.), with Gold Plated Leads (G), 115 mA, one piece in plastic box.

ATC accepts orders for our parts using designations or the “ATC” prefix. Consult factory for additional performance data.

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